

Exhibit 2

In re
Walters, et al v. Flint, et al
v.
VNA and LAN
17-cv-10164

Report of Dr. Larry L. Russell

January 3rd, 2023

Expert Report of Dr. Larry L. Russell
January 3rd, 2023

7 The lead levels remaining in the heavily corroded and tuberculated steel pipe sections collected from a house in Flint (and most likely at all other similarly plumbed homes having water service laterals made from lead) are excessive and present a risk to the health of the residents of Flint and require removal to protect the health of the citizens of Flint. Additionally, the current standards for lead content for drinking water fixtures are up to two orders of magnitude lower than the lead content of the installed fixtures and will likewise require removal and updating with fixtures that meet the current less than 0.25 percent lead requirement. The condition of the residual scale that remains in the pipes today, with the high lead content, is a problem that needs to be corrected immediately.

Basis: Measurements and observations reported in the Russell Supplement Report submitted on October 18, 2022

8 Veolia's involvement provided the last clear chance for the citizens of Flint to be spared exposure to more high lead content drinking water and Veolia dropped the ball due to conflicts of interest and multiple failures to meet the standard of care.

Basis: Knowledge of corrosion chemistry and timing of Veolia's retention

9 LAN, Veolia, and their respective engineers practiced below the standard of care with respect to water quality engineering during the time of their work in Flint.

Basis: The Flint Water Crisis continued unabated during Veolia's tenure

10 LAN, Veolia, and their respective engineers violated the standard of care and the code of ethics for engineers by putting their profits before the health and safety of the citizens of Flint.

Basis: Numerous internal Veolia emails and memos as documented in this report. LAN engineers and other witness testimony

11 LAN and Veolia engineers intentionally understated the health risk from lead to the citizens of Flint in their reports and presentations, which is below the standard of care.

Basis: Review of their reports and the trial and deposition testimony

12 Veolia and its engineers omitted reporting on lead and copper results from their presentations and reports, which is below the standard of care.

Basis: Review of their reports and the trial and deposition testimony

13 Veolia allowed their non-technical, business development personnel, to direct the technical work in Flint, which is below the standard of care for engineers.

Basis: Veolia email presented on page 39 of this report

14 Clearly, LAN, Veolia and their respective engineers failed to meet their ethical obligations along the path that led to and perpetuated the Flint Water Crisis, by failing to make independent statements to the regulatory authorities of their concerns for the health, welfare and safety of the citizens of Flint due to the poor water quality they were receiving.

Basis: NSPE case 20-04 and the NSPE code of ethics as adopted by the State of Michigan in September 2021 (exhibit 5012 of Trial 1)


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12 Signature and Stamp

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and recollection.

Executed this 3rd day of January, 2023, in Tiburon CA.

By:


Larry L. Russell, Ph.D., P.E.

